

REGULAR MEETING OF THE BOARD OF THE LYNNFIELD CENTER WATER DISTRICT

The regular meeting of the Board was held on Monday September 24, 2018 at 6:30 PM in the cafeteria at the Lynnfield Middle School at 505 Main Street, Lynnfield. Present were Commissioners Chairwoman Constance Leccese, Richard Lamusta, Superintendent Kenneth Burnham, District Counsel Attorney Christopher Casey, Water Foreman Nick Couris, and Christine Smallenberger, Clerk of the Board. Treasurer James Alexander was absent from the meeting.

The Meeting was called to order at 6:35 PM.

In attendance at the meeting were members of the district. Please refer to the attached sign-in sheet.

CDM Smith engineers opened the meeting by introducing themselves: Angela Moulton, Elaine Sistare and Carol Reigo, a water quality specialist who has worked with other communities in similar situations. Elaine will give a review from the last meeting on September 10, 2018 and Angela will go over presentation materials. Elaine spoke about the previous meeting where CDM gave a presentation for the response to the manganese problem. While it is not a health concern, it is an aesthetic concern. The district has been sampling more frequently to determine what is happening. One (1) short term solution is flushing through the system at a high rate and removing the sediment built up in 42 miles of system. The district performed flushing to areas of concern in the spring and couldn't flush in summer months because of the high demand for water. As we mentioned a few weeks ago, beginning tomorrow (September 25, 2018) we will begin flushing. The 2nd component is facilities planning for greensand filter. It is what the district does to treat the water.

Angela mentioned at the prior meeting the residents were looking for more information and simple facts regarding sources and how the water is treated. CDM prepared this comparison table (see attached documentation). The District water is locally sourced and comes from different wells throughout the district that is naturally filtered; it is ground water and colder. MWRA water comes from Central MA and Western MA and is surface water and is generally warmer. There are differences in the ways they disinfect; the District uses chlorine and MWRA uses monochloramines. There is also a difference in the pH range and a difference in their water rate structure. MWRA is a wholesale water supplier and the District would be billed for water purchased. MWRA typically has a 3.9% annual rate increase. The District has a multi-tier rate structure with a 2% increase per year. There is also a difference between the two with respect to water ban restrictions. Right now the District has a mandatory year-round ban limiting watering lawns as well as other restrictions the DEP may impose. MWRA is seeking to implement every feasible way to promote conservation such as in times of drought. There are also maintenance issues between non-local and locally sourced water. If the District would use MWRA to supplement our water supply, the District still has to operate and maintain the wells. If the District went to MWRA there would still be the maintenance of the pipes and water tanks.

There has been discussion for a new greensand filter plant. Right now CDM is proposing the green sand filter could be constructed within 2 years. The MWRA has longer time frames to around years 2023-2024.

Mrs. Campbell asked what is the difference between chlorine and monochloramines. Carol responded the District uses free-chlorine, which is chlorine applied to water called sodium hypochlorite. The chlorine you buy at a supermarket is weak compared to what we use. All of MWRA as well as other communities use Monochloride. They add ammonia and combine to form a compound. It doesn't dissipate in the system as quickly as free-chlorine. With the ammonia you need to take special precautions. You won't smell the ammonia, in fact the smell is less strong than chlorine alone. It can also affect certain users. This is all well-known information. Anything that has a membrane for example, fish breathing through gills, or someone on dialysis has to pre-treat the water so the ammonia doesn't react and cause a problem. MWRA uses this because their system is so large. They add to the reservoir in Weston and need to use it to get to far end of system (to Marblehead). Mrs. Campbell mentioned that Stoneham is on MWRA and they had a boil water order. Mrs. Rauseo asked if you can you mix the 2 waters. Carol replied Yes, you can mix the two. Wakefield uses 80/20 from Crystal Lake. They run Monday through Friday through Crystal Lake and use MWRA at night and weekends. Woburn mixes their water too. They take MWRA for the summer and in the winter they use their own wells. They feed into the system with chlorine. Whenever you take partial water, unless you use all of that water, the zone that gets the water is dependent on where the water comes in. Mrs. Rauseo asked why do I get a strong scent in my water yet other times I don't. Carol said it is probably the time of the year. The water is warmer during summertime and thus it dissipates faster. We need to make sure chlorine makes it through the entire system. As the water travels through the pipes, the lining inside the pipes essentially uses up some of the chlorine. Chlorine decays over time and will dissipate. The chlorine makes sure the water is disinfected and there is no bacteria. The iron and rust will use up the chlorine as it moves through the system decreasing the chlorine. In the summertime you have to add more chlorine. Mr. Glicksman from 8 Maiden Lane asked about the oral health affects to our water. Carol said the MWRA meets all the state requirements. Chairwoman Leccese also said the District meets the state requirements. Carol further explained the MWRA is different as their water is surface water and has organics and leaves and sediments. There is some iron and manganese and a lot of particulate water. In ground water, the water is pumped from the ground and filtered through the soil. It is naturally filtered from the ground but the ground has rocks, which is where the minerals are picked up from. Surface water is warmer and ground water stays around 50-55 degrees. MWRA treats their water but doesn't filter their water. The MWRA does not remove particulates but uses 2 very important disinfectants, ozone and ultra violet light to target microorganisms in the water. Mrs. Campbell replied that surface water seems to be more subject to tampering. Carol stated you need to take more precautions for potential tampering as it is an open reservoir.

Angela said CDM presented a rough schedule 2 weeks ago at the September 10, 2018 board meeting. The residents were looking for more detail. The 1st alternative is the proposed schedule to bring the Glen Drive treatment plant online. CDM is working with the District on facilities planning and the next step is for the District to vote for the design and construction of

the treatment plant. The design takes 4 to 6 months. We would put documents out to bid and a contractor would physically build the treatment plant. We could have the treatment plant online mid to end of the year 2020. In the poster titled Preliminary Schedule for Discussion Purposes (see attached), the yellow shows initial stages for any MWRA alternatives: supplementing or 100% tying directly or bringing from South Lynnfield into the District. The District has to do a hydraulic analysis of both districts and MWRA. We really need to fully understand how much water to use, the pipeline, water storage tanks and want to make sure we do thorough analysis to give the board and public the correct information. We may be able to present results at the 2019 spring annual meeting; at that time you will be educated to know what is the best option for the District. When you go from your water (District water) to MWRA water, you have to work with regulatory agencies, the DEP and local legislature; this planning process will take at least 2 years to 2021 and at that point we can start the design phase and start any improvements and enlist the contractors to build. If we started this process now, MWRA could be online around 2020 to 2024, depending on which alternatives is needed.

The Estimated Annual Water Bill Projection graph (see attached), has years starting from 2018 to 2050 with high level projections and on the Y axis is where the water bill cost would be. The graph shows projected numbers for the greensand filter, tying into MWRA or 100% MWRA. Starting from the bottom, the average users' water bill is assuming each house uses 77,000 gallons per year. Right now it is about \$140 a year (\$60 of that is the annual service charge and \$80 is actual water usage). The district has a tier structure, with a lower tier and when you use more the rate tier goes up. The anticipated change of rate is the purple dotted line. The next line is for MWRA Option A: supplementary water supply and capital improvements which would affect your water rate to raise it to \$400/year. Next option is MWRA Option C: 100% tie-in coming through South Lynnfield. The solid green line is for the greensand filter which increases the rate to \$500 per year and the green dash line above it is for the green sand filter and supplemental supply Option A that brings you to \$550 per year. In 2050 it will be over \$1200 dollars in today's dollar. MWRA is a wholesale water supplier with prices increasing about 4% per year, the District right now is 2%. The red line is 100% tying directly to MWRA instead of getting from S. Lynnfield; in today's dollar the cost would be just over \$800 and in 2050 would be \$1500. These are just estimates to what your water bill costs could be. Mrs. Rauseo asked about the red line (100% MWRA water) and what is included in the cost. Angela replied it includes their rates, infrastructure and tie-in. CDM and the District needs to do a hydraulic analysis to further define what exactly needs to be done. Things could change once we do the analysis. Mrs. Rauseo asked does that include getting a loan. Angela responded it includes a 5% interest paid over 20 years; we can't guarantee lower interest loans so we went with a general interest loan and assumed that rate and type of loan for every option.

The greensand filter plant is necessary for the increasing levels of iron and manganese and improve water quality and MWRA comes into play if the district wants more water above what are permitted. Mrs. Rauseo asked if we can live without spending the \$5 Million for the treatment plan, can we survive. Elaine responded while the health effects are not concerning, it is aesthetically concerning for those who have discolored water. Mrs. Rauseo responded right now I am not drinking the water and my neighbors are buying bottled water. I don't think people are going to go with it because of the rates. Elaine responded the District has been always

been able to provide water and that is the goal for decades to come. Mrs. Rauseo exclaimed we are going to run out of water in 10-20 years. Elaine responded it depends on how you manage it, if you manage it correctly we have plenty to serve the population. Mrs. Rauseo rebutted saying you will have the water bans forever and the other part of town can water. Superintendent Burnham spoke up: we want to take care of the residents in town that have discolored water. We want to give everyone 100% good quality water. One project is to make water in that area cleaner and drinkable; it's perfectly safe but an aesthetic issue. The board is looking to get that rectified by building the treatment plant. Further down the road we can look at MWRA if we need to depending on usage of the water. The District does not put a mandatory ban out every year. It depends on Mother Nature. The people in the area deserve the treatment plant first. The Ipswich River study projected that some communities need to augment but the study was misinterpreted; the study pertains to management of the water. Some communities need to augment their supply with MWRA. MWRA is looking to provide water to Danvers, Hamilton, Wenham, and Topsfield and was going to Peabody as well. Lynnfield isn't the only one with these issues. Peabody was looking at MWRA. MWRA called the District a few weeks ago and said Peabody isn't going to MWRA. In the meantime, Peabody rebuilt their South Peabody Coolidge plant and their system is back online. They are still taking a little of MWRA water but Peabody decided they may rebuild their treatment plant at less cost. There is no surefire way of MWRA putting in the pipeline so we would have to start building at Saugus. If we properly manage the water we wouldn't need to go to MWRA. We can drill more wells on the private property we own. These rock wells would be tied into the station on Phillips Road. We need to build the pumping station for the benefit of those people. Mrs. Rauseo asked if we build new wells and find new water, are we still limited per household. Superintendent Burnham responded you are limited to outside watering. The DEP limits what we can take out of the Ipswich River Basin. We finished a pump test at Phillips Road that said we should put that well online. We still have more tests and studies to do. The biggest thing is taking care of the iron and manganese problem before it gets worse in the Lowell, Chestnut and Cortland Lane areas. All the discoloration issues are in those areas. As a fact, people had come forward asking why are we doing this as there are no problems in their areas.

Mrs. Hamblen asked does the chart include the cost of searching for additional wells. Superintendent Burnham responded this is funded over the years. If you notice the tax rate is fairly low and through the tax rate it is funded in the normal operating budget. Mr. Glicksman said we all want clean water, how do we get there, we should go forward with the study before we make a decision. It is clear that drought conditions will get worse and we will need more water. Superintendent Burnham replied if you lived in an area where there is discolored water would you want to postpone this. Do you want to improve the quality of water? The bottom line is we want to clean up the system. We will be able to use this in the future. We want to keep the wells and stations up and running so it doesn't impact the future. Chairwoman Leccese said our goal is the solid green line – the treatment plant. We want to provide clear drinking water and keep our wells. Mr. Glicksman said I've been to meetings where it was said there is no more wells.

A ratepayer said it doesn't affect me personally, we are a community and we need to help these people. Water is our most precious resource. In my view everyone deserves quality water. Please take of this problem.

Mr. Glicksman asked is the flushing of the lines going to affect these people. Superintendent Burnham responded yes, it is a high velocity flushing and the DEP wants it done this way. We have always done low flushing. All our pipes is cement lined we have no tuberculous in our pipes; the iron and manganese stays on the side of the pipes and the high velocity flushing cleans the inside of the pipeline. We can't sustain pumping 1 million gallons because the wells have to recover and if they can't recover we can't keep water in the tanks. We now have the water to flush. We are starting tomorrow and if necessary we may flush in November. CDM Smith engineers will be onsite to oversee the District. The next few weeks of flushing should make a big difference. We don't want to jump into augmenting supply until we absolutely need it. Elaine said the facilities planning for Glen Drive should be done within the next 1-2 months. We will hopefully go to voters in November/December and hope voters approve it. The next step is to get DEP approval and the permits done in the winter months and put out to bid in the spring. Anyone can come to Phillips Road to look at the plant. Our operators are all licensed.

Chairwoman Leccese said we will have the information on the website and will send information to the ratepayers. Mr. Kosian asked if the District will present the alternatives in the vote in November. Superintendent Burnham said the District wants to put in a warrant for the greensand filter but if people want to put something else, that is fine. Mr. Kosian said he thinks it's great for the other people in district to see what the alternatives are for the vote. Foreman Couris said we are planning a mailer and will put it on the website. Superintendent Burnham said only members of the district can vote at the Special District Meeting. We are separate from the town meeting. The District was formed in 1939 as an enabling act to keep politics out of the District. The money from taxes is for operating costs for the District. The District members vote for the budget in the springtime. We put money in the budget each year to search for new wells. Mr. Kosian said he doesn't have a water problem at his home. Mrs. Rauseo inquired about the selectman choosing one of our commissioners and mentioned they cannot do that. Only District members can choose the commissioners. Superintendent Burnham responded that every year you can oust one of us, I only took it because eventually I will retire and want to stay at a commissioner. The District counsel attorney had looked into this and I'm legally okay to be a commissioner. Superintendent believe the quorum is 2/3 of the people majority there to vote. It can only be residents of the District. We will be meeting with South Lynnfield to conduct a study that will cost \$100,000. We could do this study in the future. The study is on hold for now.

A motion was made and approved to accept minutes of the September 10, 2018 meeting.

Chairwoman Leccese inquired about the public relations firm proposal. She is concerned the price for the website design is high. She wants to know about the deliverables. Chairwoman Leccese would also like to put her entire response to Selectman Dalton on the website. Foreman Couris said the PR firm's turn-around time is fast. Before we go ahead we want examples of press releases. Chairwoman Leccese said we should have an exit clause in the PR agreement. Chairwoman Leccese also expressed our email system is terrible. Foreman Couris

responded the PR firm would transfer over anything on our current website and keep our domain. We need to be able to go on to internet and get wherever we need to go. The goal is user friendly.

Foreman Couris said we have not heard from Attorney Casey regarding private ways.

Chairwoman Leccese said to advertise for the new operator position for 2 weeks only on the Mass Water Works website. It was determined to have this position start early to mid-January.

We have to work with Hingston to get the rates done for the December billing. He is working on the rates, and has to build in new positions.

A motion was made to make the rate increase effective November 1st. The motion was seconded by Commissioner Lamusta and approved.

Filter rebates were approved by the Commissioners.

A motion was made and seconded and moved by Commissioner Leccese to transfer money from contingency reserve fund to Other Labor. Commissioners Burnham and Lamusta recused themselves from this motion.

Foreman Couris spoke about the preparation for flushing. We launched the reverse 911 and set up sideboard at 4 corners. A CDM engineer will be here tomorrow morning. We plan to flush from 10 am to 2 pm. We will post on our website, Facebook and Twitter. We bought a frame sign for the area that reads flushing in progress. We sent the reverse 911 on Thursday.

The lead and copper tests all came back good. One sample was over on copper. The water quality parameters from the schools were good. We are waiting for the middle school and daycare lead and copper samples. We got secondary report iron and manganese last week and everything looks good across the board. Optimization of sources. The only one over is the Glen Drive plant. Everywhere else is undetected. Flushing should alleviate most of that. We don't make the house on Lowell Street public. We had surprise inspection from the state (DEP). They took samples and were happy and said we are doing everything we can do and don't limit our options.

We had 2 to 3 discolored water complaints in the last few days. 3 calls were from 794 Lowell St. and 1 from W. Tapley. There were no other calls. We took samples from 555 Lowell and 23 W. Tapley and the results will be back this week. We received a call from 24 W. Tapley this weekend and she was understanding. Sean drove by the neighborhood to see if there was anything going on.

Chairwoman Leccese said we need to go over job descriptions and sick leave in the future.

A motion was made and seconded to adjourn the meeting at 8:31 PM.

Respectfully submitted,